

NGINX Conf 2018

The official event for all things NGINX



Scaling your web app to new heights with AWS and NGINX

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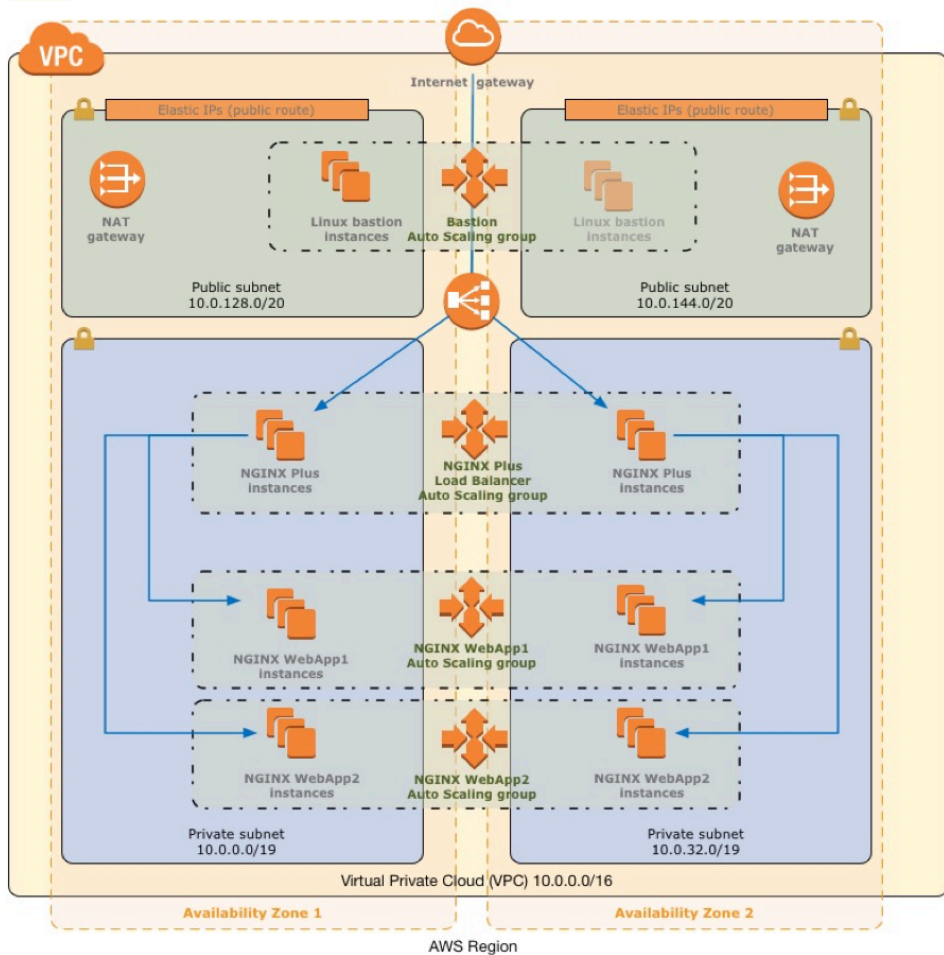


NGINX Plus on AWS Quick Start



AWS

VPC



AWS Region



Quick Start Components

- **NGINX Plus** – Provides application level routing rule and front-end load balancing
- **NGINX OSS** – Provides webserver to frontend application
- **Amazon Auto Scaling Groups** – Provides scaling for NGINX Plus LBs and NGINX OSS application servers
- **Amazon Classic Load Balancers** – Provides cross AZ routing to NGINX Plus nodes
- **Amazon Route 53** – Provides cross region Global DNS load balancing
- **Amazon VPC** – Provides private segregated networks in each AZ

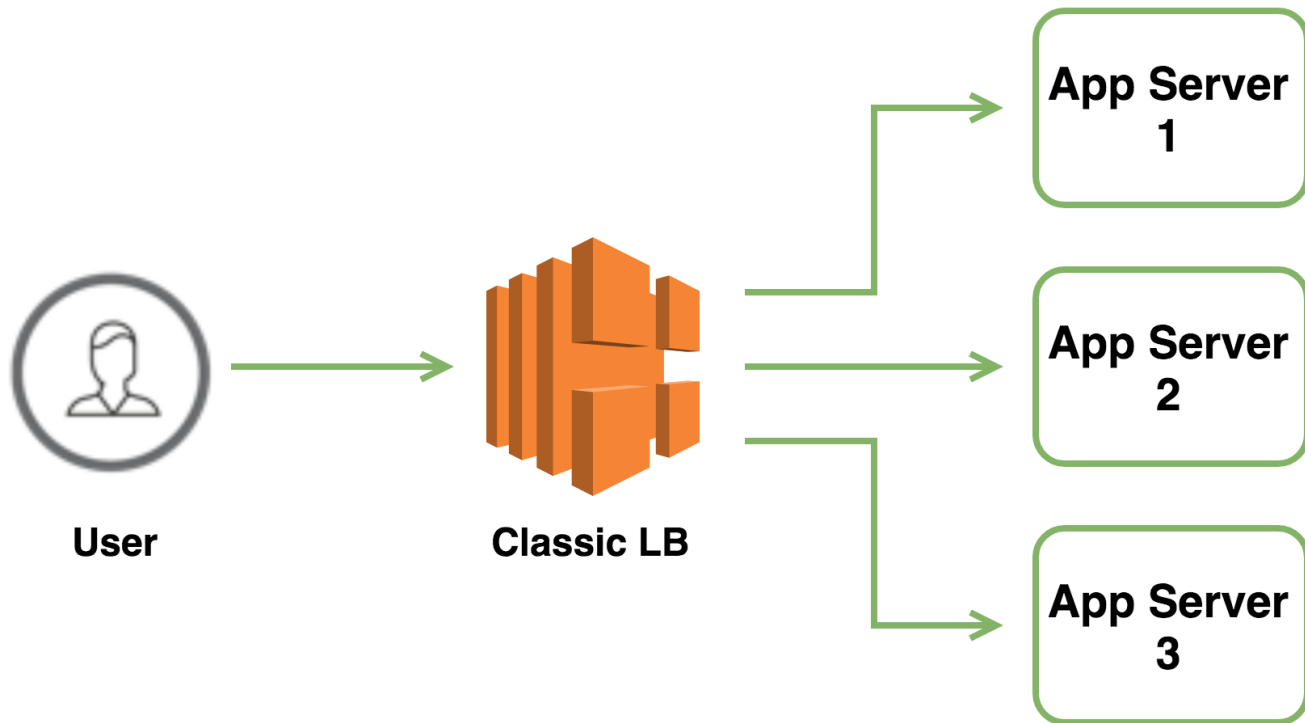
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OSS also do
NGINX Plus
mention that
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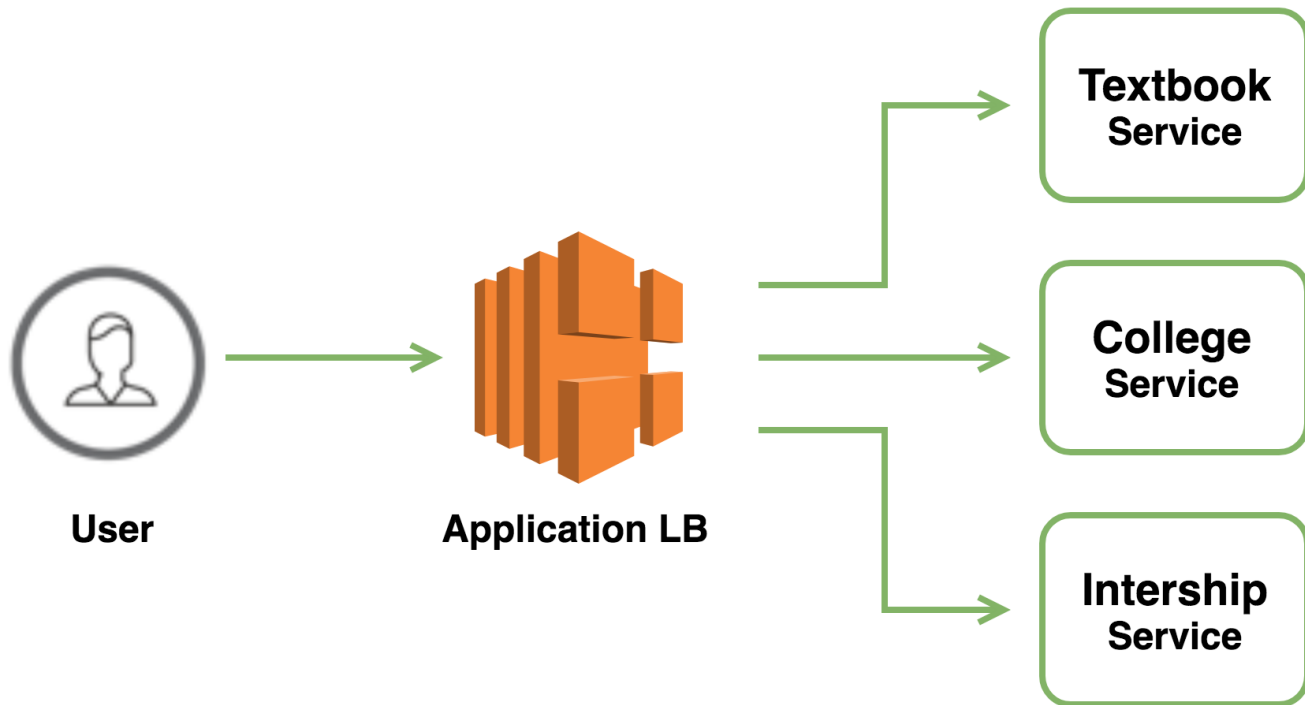
NGINX Plus and AWS Load Balancers



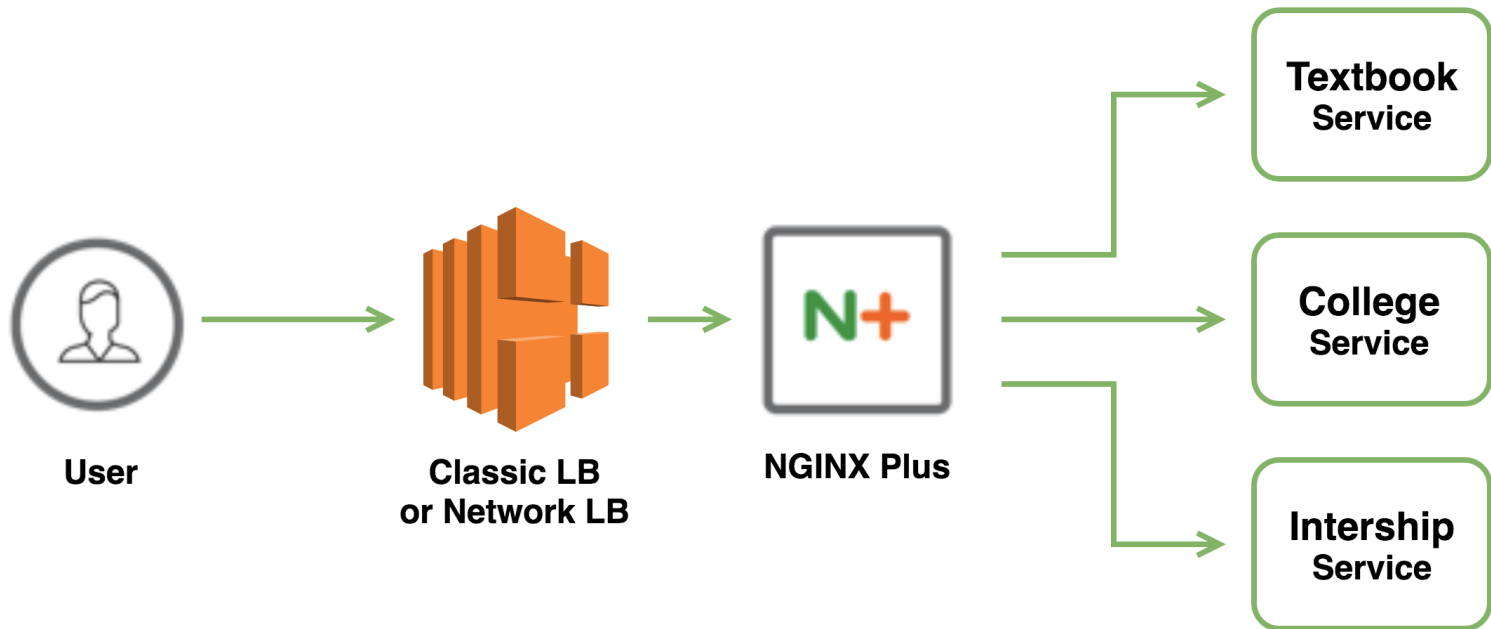
NGINX Plus and Amazon LBs



NGINX Plus and Amazon LBs



NGINX Plus and Amazon LBs



NGINX Plus and Amazon LB Comparison Summary

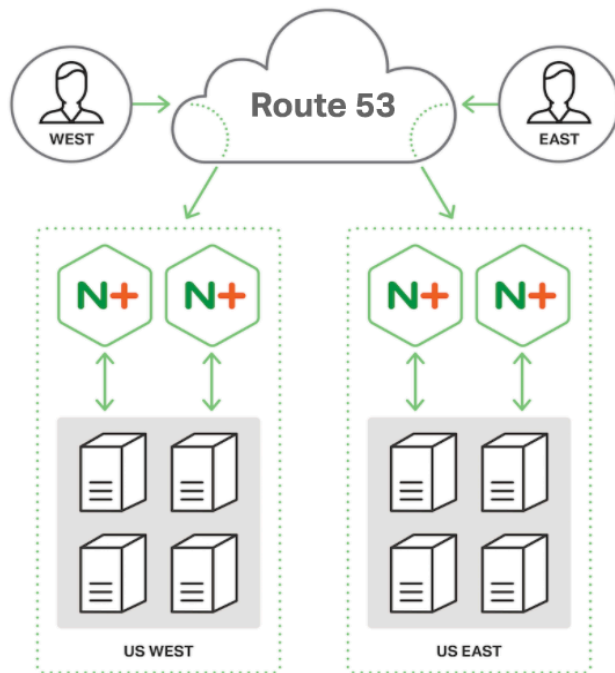
- Use Amazon Classic or Network Load Balancer for:
 - Basic TCP or HTTP load balancing to multiple NGINX Plus instances or target application.
 - High-availability load balancing across multiple availability zones
 - Auto scaling NGINX Plus instances and backend servers
- Use Amazon Application Load Balancer for:
 - Simple Layer 7 routing (path and host)
 - Integration with other AWS Services such as ECS
- Use NGINX Plus for:
 - Advanced Layer 7 routing (e.g. path-based routing)
 - Improving overall performance with content caching
 - Improving SSL/TLS performance with elliptic curve cryptography(ECC)
 - WebSocket and HTTP/2 proxying
 - Full GRPC load balancing support
 - Advanced HTTP health checks
 - SSO and API authentication with JWT
 - Multiple licensing options, including hourly via the AWS marketplace or yearly direct from NGINX

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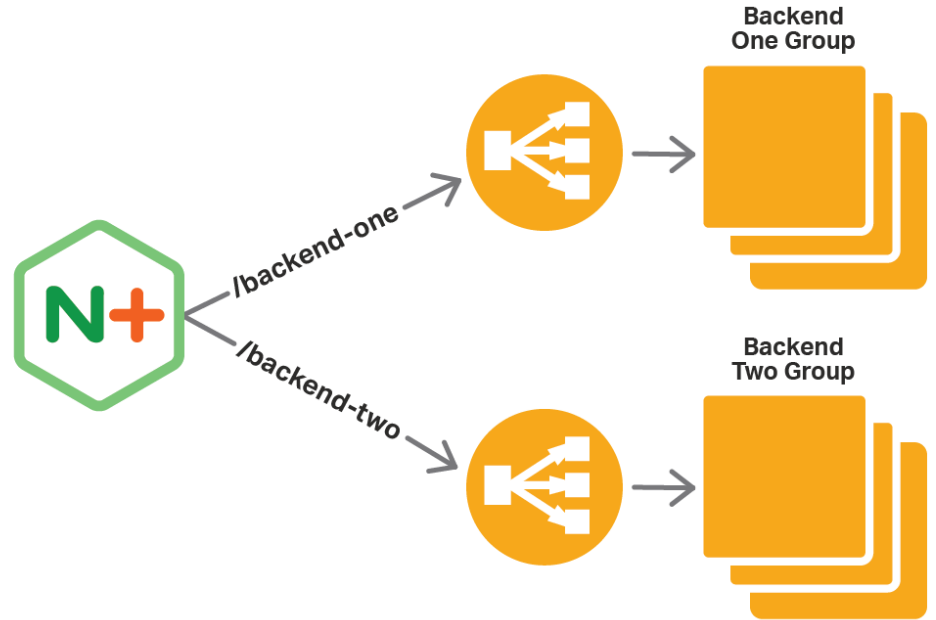
NGINX Plus and Amazon Route 53 GSLB (Global Load Balancing)

- Can be configured for either Active/Active or Active/Passive HA solutions
- Provides geographic based routing for best end user experience
- Can be used with or without Amazon Elastic Load Balancers



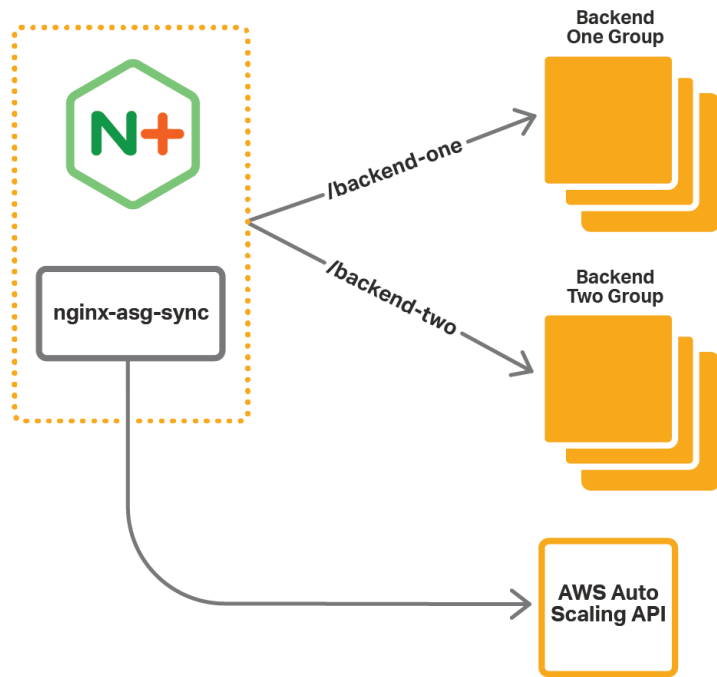
NGINX and Amazon Auto Scaling Groups

- Standard architecture when using NGINX OSS or Plus
- Amazon Classic or Network Load Balancer sit in front of auto scaling group
- NGINX Plus utilizes resolver functionality



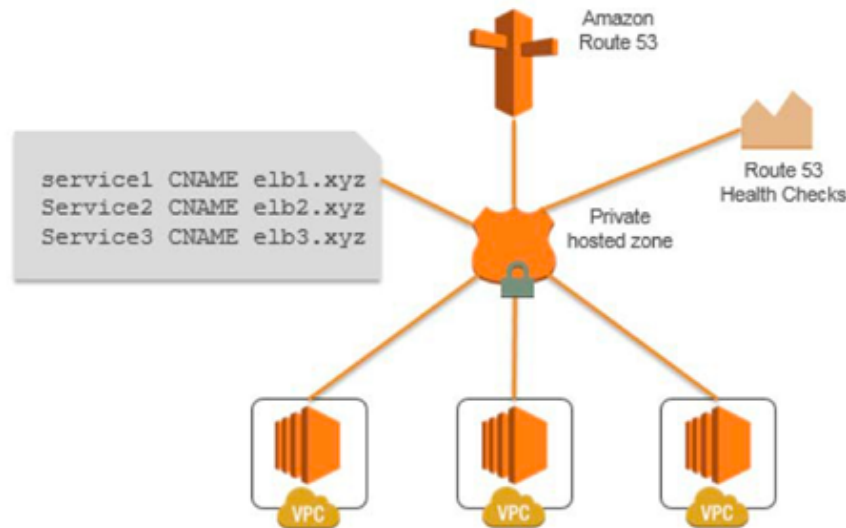
NGINX Plus and Amazon Auto Scaling Groups

- Leverages the NGINX Plus dynamic reconfiguration API
- Requires nginx-asg-sync integration software to be installed
- Allows NGINX Plus to load balance the application servers directly, without needing an Amazon Classic Load Balancer
- Supports integration for Amazon Auto Scaling Groups, Amazon EC2 Container Services and standard Amazon EC2 instances



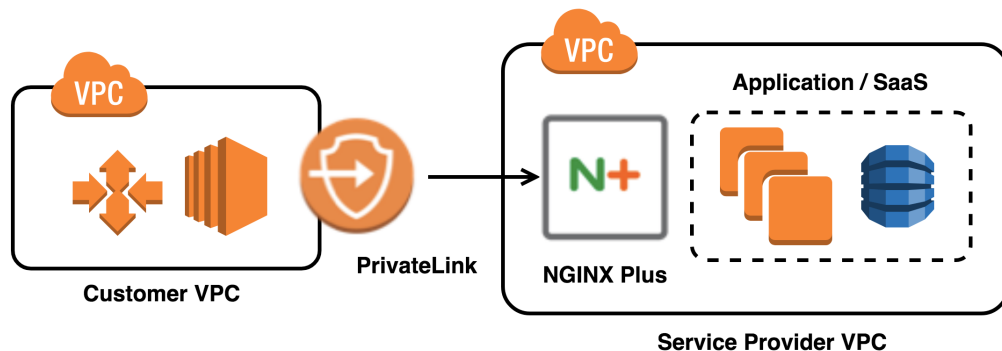
NGINX Plus and Amazon Route 53 Service Discovery Functionality

- Leverages the NGINX Plus resolver functionality
 - Nodes auto registry instances information with Route 53
 - NGINX Plus will re-check with route53 on set interval
- Allows NGINX Plus to load balance the application servers directly, without needing an Amazon Classic Load Balancer
- Supports integration for Amazon Auto Scaling Groups, Amazon EC2 Container Services and standard Amazon EC2 instances



NGINX Plus and AWS PrivateLink

- AWS PrivateLink provides private connectivity between VPCs, AWS services, and on-premises applications, securely on the Amazon network. (Not over the Internet)
- NGINX Plus R16 introduced support for PPv2, officially support AWS PrivateLink





Thank you

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